



# **Cooperative Project on Methane Capture and Use to Improve Mine Safety**



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**United Nations Economic Commission for Europe  
Ad Hoc Group of Experts on Coal mine Methane  
16 October 2008, Geneva**



# Project Background

## Lead Organisations:

- **Methane to Markets Partnership**

International partnership to further CH<sub>4</sub> recovery and utilisation; 27 countries & EU

- **UN Economic Commission for Europe**

Regional Commission for N. America, Europe, FSU, Turkey

- **US Environmental Protection Agency**

Expertise in domestic and international efforts on CMM recovery and utilisation

- **World Coal Institute**

International coal industry association representing producers and regional associations





# Project background

Methane released during coal mining cause of a significant number of accidents globally

Risk factors identified;

- Difficult geological conditions
- Underinvestment in methane drainage and utilisation
- Poor operational practices
- Ineffective or counter-productive regulatory standards
- Inadequate enforcement of safety regulations





# Partnership's Goals

**‘Support safer mining practices to reduce fatalities, injuries and property losses, whilst also encouraging use of the CMM to reduce greenhouse gas emissions and use otherwise wasted energy resources’**

## Project aims to:

- Strive toward goal of zero fatalities, injuries and property losses
- Demonstrate the global coal industry's commitment to mine safety, climate change mitigation, corporate social responsibility and good citizenship
- Establish an industry-to-industry dialogue and network between the industries from the developed economies and those in the emerging economies
- Create the necessary linkage between the industry and government/regulatory officials
- Link effective CMM capture as a part of an effective risk management portfolio





# Project Objectives

## Number of bilateral and multilateral initiatives to support improved mine safety

- UNDP – Strengthening Coal Mine Safety Capacity in China
- ILO – Code of Practice on Safety and Health in Underground Coalmines
- APP – Coal Mine Health and Safety

## Industry lacks set of recommended principles and standards for methane recovery and utilisation

**Audience: mine operators, regulators, government officials and technical professionals**





# Deliverables

- **Publication of best practices guidance on methane drainage and utilisation**
- **Primarily a technical document**
- **Detailed objectives and principles, NOT prescriptive**
- **Available in multiple languages**
- **Supportive workshop / seminar series: Add value and disseminate findings**





# Structure (i)

- **Executive Steering Committee**

Responsible for overall project management

- Pamela Franklin, US EPA & Methane to Markets
- Roland Mader, Chair UNECE Ad Hoc Group of Experts on CMM
- Ray Pilcher, UNECE, Chair Task Force on Improving Mine Safety through the Extraction & Use of Coal Mine Methane
- Adam Sek, UNECE
- Luke Warren, World Coal Institute

- **Technical Experts Drafting Group**

Recognised experts to develop technical content

- Subrata Chaudhuri, former Chairman India Central Mine Planning Design Institute
- David Creedy, Sindicatum Carbon Capital
- Mike Pitts, GreenGas International
- Ralph Schlueter, DMT
- Hilmar von Schoenfeldt, Petron Resources
- Pramod Thakur, CONSOL



# Structure (ii)



- **Technical Peer Review Group**

In-depth technical review process

- 10 – 15 technical experts
- Group to be finalised in 2009

- **Wider Peer Review Group**

Review of draft report

- Lead organisations' constituencies
- Final review prior to printing



# Indicative Report Structure



- **Introduction**
  - Purpose and objectives of guidelines
- **Assessing the Methane Resource**
  - Techniques for measuring methane content
  - Assessing methane desorption, production, emissions, costs
- **Methane drainage**
  - Overview of global practices
  - Technology assessment, design and installation of the drainage system
- **Mine ventilation**
  - Optimal design considerations, performance criteria for ventilation system
- **Methane utilisation**
  - Summary of utilisation options
  - Highlight other available resources
- **Case studies**

# Timeline



- **To date**
  - Executive Steering Committee convened a number of meetings
  - Technical Experts Drafting Group formed
- **Dec. 2008**
  - Technical Experts Drafting Group kick-off meeting, Beijing
- **1Q 2009**
  - First draft report completed by Technical Experts
  - Technical Review Group finalised
- **2Q 2009**
  - Draft report circulated for comment to Technical Review Group
- **3Q 2009**
  - Comments from Review Group addressed
  - Draft final report sent for wider peer review
- **4Q 2009**
  - Report finalised and published
- **4Q 2009 – 2010**
  - Dissemination of report via workshops, seminars as appropriate



**Methane to Markets**



UNITED NATIONS  
ECONOMIC COMMISSION  
FOR EUROPE



**WORLD COAL  
INSTITUTE**

**Thank you**

**Questions and comments?**



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